United States Department of the Interior

GEOLOGICAL SURVEY
P. O. Box 69
Albuquerque, New Mexico 87103

Confidential Claim Retracted
Authorized by: SE
Date: 6/12/13

Mine Examination Report
Jackpile-Paguate Mine
Anaconda Copper Company
Pueblo of Laguna Uranium Leases 1 and 4
Townships 10 and 11 North, Range 5 West, N.M.P.M.
Valencia County, New Mexico
April 13, 1981

April 7, 1981, I inspected the open-pit and underground mining operations at the Jackpile-Paguate Mine. I was accompanied through the open-pit operations by Mr. Erwin Green, and through the underground workings by Mr. Mark Witt. The inspection was conducted to examine the current activities and the sites of three proposed underground mining operations.

The open-pit operations are conducted two 8-hour shifts per day, five days per week, with a mining and maintenance workforce of 57 employees. Activities are limited primarily to shipping ore from stockpile 17E in the Jackpile Pit. The ore in this stockpile averages 0.054 percent U_3O_8, and about 90 percent of the total daily mine production of 6600 tons comes from this stockpile. There is no mining activity in the open-pits, and the remaining ten percent of the mine production comes from the underground operations.

There usually is not an ore train from the mine during the Wednesday day shift, and at that time the employees and equipment are used for limited backfilling in the pits. The majority of this backfilling has been in the Rabbit Ears area of the North Paguate Pit. This area has been proposed for the relocation of State Highway 279, and the backfilling of hazardous material is now ten feet below the finished backfill grade. Anaconda proposes to cover the hazardous material with four feet of non-hazardous material. Mr. Green pointed out that only hazardous material is being used for backfill; no protore or non-hazardous material is being handled due to uncertainty about final reclamation requirements.

During the open-pit inspection, I examined the sites of the completed PW2-PW3 Adit Mine, and the proposed P-13 and NJ-45 Mines. The PW2-PW3 Mine was approved in 1978 for the recovery of remnant ore zones in the west highwall of the North Paguate Pit. Mining was completed in February 1981, and the highwall has been buttressed for stability with waste material from Dump 2F. The buttressing has covered all but one of the PW2-PW3 adit portals. The P-13 Mine is actually a extension of the active P-10 Mine. The underground workings would also connect with the mined-out South Paguate Pit, and limited surface facilities would be located in the Pit bottom. Hazardous material has been backfilled in the Pit bottom, and will need to be leveled for

placement of the facilities. The NJ-45 Mine would consist of four adits driven into the east highwall of the North Jackpile Pit to recover ore zones under Gavilan Mesa. Limited surface facilities would be located in the bottom of the Pit, and hazardous material has been backfilled and leveled for those facilities. The Pueblo of Laguna and BIA have recommended approval of the P-13 and NJ-45 Mines, and the Albuquerque District Office is in the process of approving the mining plans.

Mr. Green explained that Anaconda's use of an ore sorter to upgrade ore stockpiles had not been very successful. Major causes were mechanical breakdowns, and the equipment's lack of mobility and capacity. Sorting at stockpile J-17 also revealed that the stockpiles tend to be spotty, varying significantly in grade from place to place within the same stockpile. Work with the sorter continues, and Anaconda hopes to process stockpile J-6B in the near future.

Underground operations at the Jackpile-Paguate Mine are limited to the P-10 Mine and the old H-1 Mine. As previously discussed, the PW2-PW3 Mine was abandoned in February 1981. The old H-1 Mine was abandoned in 1975, and is being re-entered to provide an underground miner training facility. Current operations consist of driving one adit parallel to the original H-1 adit with an Alpine Miner. No ore will be mined in the H-1 operations.

The P-10 Mine operates two 8-hour shifts per day, five days per week. The workforce consist of 74 mining personnel, 24 maintenance employees, and 12 engineering employees. Daily ore production is about 630 tons. Anaconda expects the end of mining to occur by July 1, but this forecast does not consider possible extensions, such as the previously discussed P-13 Mine. The P-10 Mine currently has 17 active ventholes (four downcast, thirteen upcast), and approximately 400,000 cfm of fresh air are circulated through the working areas.

The P-10 Mine presently has seven mining areas producing ore. Only two of these areas are actual stopes; the others are scram drift operations to recover remnant ore above the haulage drifts, or the mining of ore zones encountered in the haulage drifts themselves. According to Mr. Witt, the mining cutoff grade fluctuates according to mill requirements.

The only actual stopes that are active are the 602 and 2205 Stopes (see attached map). Pillar recovery is underway in the 602 Stope, and ore is being developed to the south and east in the 2205 Stope off of the 2200 Track Drift (TD). Mr. Witt pointed out that the southern ore in the 2205 Stope is immediately adjacent to the P-15

area, and may continue into that area. Anaconda has been given permission to extend the P-10 workings into the P-15 area to recover a portion of those ore reserves. The 200 TD would be the access to the P-15 area, and track repair has been underway in preparation for the extension of the mining operations. Ore was encountered in the 200 TD, and if Anaconda does not mine the P-15 area, recovery of this ore during the month of June would end mining in this part of the P-10 Mine.

There are three active scram drift operations in the Mine, but only one of them is presently producing ore. The 312 Scram is drawing out 305 ore from underneath, while the 211 and 1400 Scrams are being developed to recover 211 and 1401, 1402, and 1403 ore reserves respectively. The 211 Scram will involve "belling out" the overlying 211 ore zone, and the 1400 Scram will recover barrier pillars left above the haulage drift.

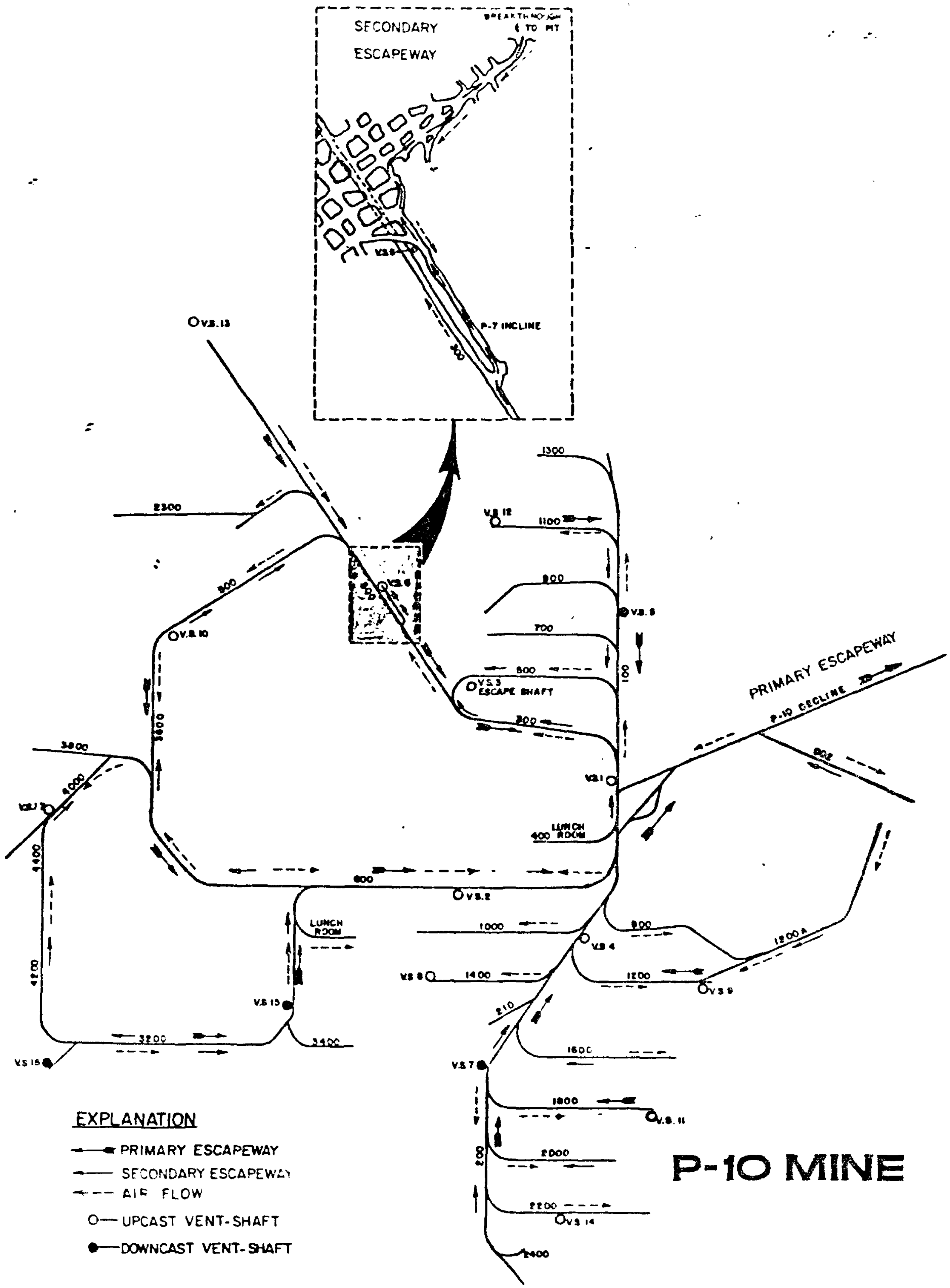
Ore encountered in the haulage drifts is being recovered in the 002 Stope, 1100 TD, 1600 TD, and 1800 TD. Similar operations have occurred in the 1200 TD and 2000 TD. In the 002 Stope, the northern ore has been recovered, and the ore in the haulage drift at the chinaman chute is now being pulled. The 002 Stope is located off of the P-10 decline, and was being mined using diesel-powered trucks instead of rail haulage. The 1100 TD is located in the northern part of the Mine, and the ore in the haulage drift is now being pulled. Caving has occurred, but it has not been bad enough to prohibit mining. The 1600 TD and 1800 TD are located at the southern end of the Mine. Ore recovery has just begun in the 1800 TD, and the 1600 TD operations are being slowed by excessive water. However, ore in the 1600 TD averages about 0.25 percent U_3O_8, and the ground conditions are good.

Dale C. Jones
District Mining Supervisor

Enclosure

cc:
Original to Superintendent, Southern Pueblos Agency, BIA
DCM--Mining, SCR (W/Encl.)
Governor, Pueblo of Laguna (W/Encl.)
Anaconda Inspection File (W/Encl.)
Jones - Field File
Chrono

DCJones:ab: 04-13-81


SECONDARY
ESCAPEWAY
P-7 INCLINE
PRIMARY ESCAPEWAY
P-10 DECLINE
ESCAPE SHAFT
LUNCH ROOM
LUNCH ROOM
EXPLANATION
PRIMARY ESCAPEWAY
SECONDARY ESCAPEWAY
AIR FLOW
UPCAST VENT-SHAFT
DOWNCAST VENT-SHAFT
P-10 MINE